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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/662,178

09/15/2003

Ray G. Sadler

10001445-4

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EXAMINER

KAPLAN, HAL IRA

ART UNIT

PAPER NUMBER

2836

MAIL DATE

DELIVERY MODE

11/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/662,178	Applicant(s) SADLER ET AL.	
	Examiner Hal I. Kaplan	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant's petition filed on September 12, 2007, has been granted, and the application is entitled to a priority date of April 29, 2000.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 17 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by the US patent of Higashi et al. (6,014,322).

As to claim 17, Higashi discloses a first bulk power supply (1); a second bulk power supply (2); at least one isolation diode (26) for hot swapping between the first and second bulk power supplies (1,2) without disabling the first (1) or second (2) bulk power supply; and an output receiver (+V) that receives output from the diode (26) (see column 5, lines 12-17 and Figure 1).

As to claim 20, Higashi discloses a control logic (22) for controlling the bulk power supply system (see column 4, lines 56-61 and Figure 1).

4. Claim 28 is rejected under 35 U.S.C. 102(e) as being anticipated by the US patent of Nelson (6,278,624).

As to claim 28, Nelson discloses a method of providing a supply power output for a user system comprising: receiving first and second AC inputs (136,138) from first and second AC input lines; converting (148,168) the first and second inputs into DC power; adjusting (156,176) the DC power to ensure that the DC power has at least a predetermined value for a power factor; sending the adjusted DC power (156,176) to at least two converters (152,172), wherein the converters (152,172) are designated to receive DC power of differing voltage levels (see column 6, lines 18-24; the rectified voltages will be different since the AC voltages are different); transmitting outputs of the converters to at least one isolation diode (130,132; see column 5, line 66 - column 6, line 4) and to an output filter (162); and receiving an output (128) from the output filter (162) (see column 5, line 54 - column 6, line 4; column 6, lines 14-67; and Figure 3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 18, 19, 24, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higashi in view of the US patent of Gegner (5,404,092).

As to claim 18, Higashi discloses a rectifier (11-14) for converting AC input power into DC power, and a converter (16-20) that receives DC power. Higashi does not disclose the claimed line filter or power factor correction circuit. Gegner discloses a line filter (501) that receives AC input power; a power factor correction circuit (503); and a converter (506) that receives the DC power after power factor correction (see column 4, lines 56-65 and Figure 5). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used a line filter and power factor correction circuit with each of the bulk power supplies of Higashi, in order to reduce EMI noise ("EMI

filter", see Gegner, column 8, lines 6-7) and generate a smooth, regulated DC voltage with a desired power factor from each bulk power supply.

As to claim 19, Gegner discloses suppressing harmonic signals (501) from reflecting back to the AC input lines (see column 8, lines 6-7).

As to claim 24, Higashi in view of Gegner do not disclose the 0.98 power factor value; however, selections of values of operational levels for an electronic device are engineering decisions based upon the system's intended use and the expected requirements of the systems with which it will interface. See MPEP §2144.04 IV (A).

In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

As to claim 26, Higashi in view of Gegner disclose first and second converter chains (bulk power supplies) comprising first and second line filters, rectifiers, power factor corrections, and converters, as set forth above. The isolation diode (26) of Higashi switches between the first and second bulk power supplies (1,2) upon failure of one of the bulk power supplies (1,2) (see column 5, lines 12-17).

As to claim 27, the switching between the converter chains of Higashi occurs instantaneously ("while maintaining the power supply to the load") (see column 5, lines 12-17).

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higashi in view of the US patent of Brown et al. (5,481,730).

As to claim 21, Higashi discloses all of the claimed features, as set forth above, except for the claimed power monitoring. Brown discloses control logic for a power supply system which sends and receives status information to and from a power monitor via a connector (see column 1, lines 48-59). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have incorporated such control logic into the system of Higashi in order to anticipate impending problems and prevent hardware failures.

10. Claims 22 and 23 are rejected under 35 U.S.C 103(a) as being unpatentable over Higashi in view of Brown, as applied to claim 21 above, and further in view of the US patent of Li (6,700,767).

As to claims 22 and 23, Higashi in view of Brown disclose all of the claimed features, as set forth above, except for the claimed fan. Li discloses a fan (see Figure 1) for cooling a bulk power supply system, further comprising at least one bias supply (Vcc) for supplying power to the fan (see column 2, lines 31-44 and Figures 1 and 2). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used a fan with a bias supply such as that taught by Li to supply power to the fan and the control logic of Higashi in view of Brown, in order to prevent damage to the circuitry due to an over temperature condition.

11. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higashi in view of the US patent of Kociecki (6,198,642).

As to claim 25, Higashi discloses all of the claimed features, as set forth above, except for the claimed load share controller. Kociecki, drawn to a compact multiple output power supply, discloses a load share controller (696) to control load sharing in a bulk power supply system (see column 20, line 26 - column 21, line 14). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used the Unitrade Corp. type UC3902 load share controller, as taught by Kociecki, to control load sharing in the system of Higashi, in order to ensure that each load receives its proper voltage and current.

12. Claims 29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson in view of Gegner.

As to claim 29, Nelson discloses all of the claimed features, as set forth above, except for suppressing harmonic signals from reflecting back to each of the AC input lines. Gegner discloses suppressing harmonic signals (501) from reflecting back to the AC input lines (see column 8, lines 6-7). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used a line filter with each of the bulk power supplies of Higashi, in order to reduce EMI noise ("EMI filter", see column 8, lines 6-7) and generate a smooth, regulated DC voltage with a desired power factor from each bulk power supply.

As to claim 32, Nelson in view of Gegner do not disclose the 0.98 power factor value; however, selections of values of operational levels for an electronic device are engineering decisions based upon the system's intended use and the expected requirements of the systems with which it will interface. See MPEP §2144.04 IV (A).

In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), *cert. denied*, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

13. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson in view of the US patent of Cabaniss et al. (5,790,394).

As to claim 30, Nelson discloses all of the claimed features, as set forth above, except for a chassis. Cabaniss discloses providing power back to a chassis (205) for distribution to components of a user system (see column 3, lines 2-12 and Figure 2). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to provide the output power from the system of Nelson back to a chassis for distribution to other components of the user system, as per the teaching of Cabaniss, because user systems have many different components requiring different voltages, and it is more efficient for multiple components to be connected to a common chassis/backplane.

14. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson in view of Brown.

As to claim 31, Nelson discloses all of the claimed features, as set forth above, except for sending and receiving status information between a power monitor and the user system. Brown discloses control logic for a power supply system which sends and receives status information to and from a power monitor via a connector (see column 1,

lines 48-59). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have incorporated such control logic into the system of Nelson in order to anticipate impending problems and prevent hardware failures.

Response to Arguments

15. Applicant's arguments, see Remarks, filed July 10, 2007, with respect to the objections to the specification and claim 17 have been fully considered and are persuasive. The objections have been withdrawn.

16. Applicant's arguments with respect to claims 17, 20-23, and 25 have been considered but are moot in view of the new ground(s) of rejection.

17. Applicant's arguments filed July 10, 2007, in regard to the combination of Cabaniss in view of Gegner have been fully considered but they are not persuasive.

The Applicant states that the motivation "in order to reduce EMI noise" is improper because it is derived from Applicant's disclosure. The Examiner respectfully disagrees.

"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). The teaching, suggestion, or motivation must be found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of

ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000).

The motivation "in order to reduce EMI noise" is derived from the Gegner reference, which refers to the filter (501) as an "EMI filter" (see column 8, lines 6-7 and Figures 1-5 and 8). In addition, one of ordinary skill in the art would generally know that it is desirable and common to use an input filter to block unwanted noise. Thus, the motivation "in order to reduce EMI noise" is found both explicitly in the Gegner reference and implicitly in the knowledge generally available to one of ordinary skill in the art. The Examiner agrees that this motivation is also found in applicant's disclosure; however, an otherwise proper motivation found in the prior art is not rendered improper merely because it can also be found in the Applicant's disclosure. As long as the motivation is found either explicitly or implicitly in the prior art or the knowledge generally available to one of ordinary skill in the art, the motivation is proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

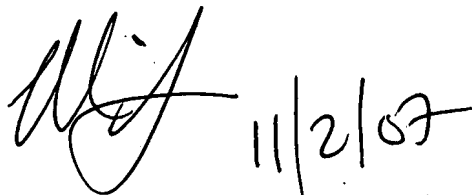
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/662,178
Art Unit: 2836

Page 11

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A handwritten signature in black ink, followed by the date 11/2/07 written in a similar style.

MICHAEL SHERRY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800